

CLAIMS

1. A method for automatically generating and
5 connecting a text string to at least one installation
element in a representation of an installation system in
a computer readable form, such as a CAD-drawing, said
text string indicating the properties of said element in
said installation system, comprising, for each
10 installation element, the steps of:
 identifying the type of said installation element
 used in said representation of an installation system;
 reading for said element type, from a database,
 predetermined rules and a text pattern corresponding to
15 the type of said element, said rules determining which
properties of said element type to present and said text
pattern being a layout scheme for said determined
properties;
 combining, from said representation of the
20 installation system, the properties of said element, such
as dimensions, with said text pattern to produce a text
string for said element based on said rules; and
 connecting said text string with said element in
said representation.
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2. A method according to claim 1, comprising the
further step of:
 assigning different predetermined rules and text
patterns for different users, allowing generating and
30 connecting a user specific text string for each element.

3. A method according to claim 1, comprising the
further steps of:
 defining additional rules for said element type,
35 said additional rules settle whether a text string for
said element type is to be presented; and

determining, based on said additional rules of said element type, whether said text string is to be presented.

- 5 4. A method according to claim 1, wherein said predetermined rules and said text pattern additionally comprises location constraints and instructions for positioning said text string, and the step of connecting said text string comprises the substeps of:
- 10 searching said representation of an installation system in order to find a location to put said text string satisfying the predetermined rules; and
- applying said text string to the representation of the installation system on said location.
- 15 5. A method according to claim 1, wherein, the step of connecting said text string comprises the substep of:
- introducing a line between said text string and said corresponding element indicating the relationship between
- 20 said text string and said element.
6. A method according to claim 1, wherein the step of identifying said element type used in said representation comprises the substeps of:
- 25 obtaining at least measurements and geometry of an representation element on said representation;
- comparing at least said measurements and said geometry with a database comprising measurement and geometry data of installation elements; and
- 30 determining if said representation element is an installation element and conditioned if said representation element is an installation element,
- determining the element type of said representation element.
- 35 7. A method according to claim 1, wherein each element type corresponds to a text pattern stored in said

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determining, based on said additional rules of said element type, whether said text string is to be presented.

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applying said text string to the representation of the installation system on said location.

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11. A method according to claim 3, wherein said predetermined rules and said text pattern additionally comprises location constraints and instructions for positioning said text string, and the step of connecting said text string comprises the substeps of:

searching said representation of an installation system in order to find a location to put said text string satisfying the predetermined rules; and

applying said text string to the representation of
5 the installation system on said location.

12. A method according to claim 1, wherein the step of connecting the text string to the representation comprises the additional steps of testing positions on a
10 gradually increasing distance from the centre of the installation element until a position is identified on which the text string does not overlap any other features on the representation, and to place the text string on said identified position.

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13. A method according to claim 12, wherein the distance is increased in stepwise increments.

14. A method according to claim 12 or 13, wherein at
20 least two positions are tested on each chosen distance.

15. An apparatus for automatically generating and connecting a text string to at least one installation element in a representation of an installation system in
25 a computer readable form, such as a CAD-drawing, said text string indicating the properties of said element in said installation system, comprising:

means for identifying the type of said installation element used in said representation of an installation
30 system;

means for reading for said element type, from a database, predetermined rules and a text pattern corresponding to the type of said element, said rules determining which properties of said element type to
35 present and said text pattern being a layout scheme for said determined properties;

means for combining, from said representation of the installation system, the properties of said element, such as dimensions, with said text pattern to produce a text string for said element based on said rules; and

- 5 means for connecting said text string with said element in said representation.

16. A computer-readable medium, on which is stored a computer program comprising instructions for a general purpose computer for automatically generating and connecting a text string to at least one installation element in a representation of an installation system in a computer readable form, such as a CAD-drawing, said text string indicating the properties of said element in said installation system, comprising:
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identifying of the type of said installation element used in said representation of an installation system;

- reading for said element type, from a database, predetermined rules and a text pattern corresponding to the type of said element, said rules determining which properties of said element type to present and said text pattern being a layout scheme for said determined properties;
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- combining the properties of said element, such as dimensions, with said text pattern to produce a text string for said element based on said rules; and
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connecting said text string to said element in said representation.